

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A stuffing seal (1) comprising:
a case (3) provided with an axial hole (3a) for the passage of a stem (103) being mobile with respect to ~~said~~ the case (3),
a gasket or packing (5) arranged in a seat (3b) formed within ~~said~~ the hole (3a) between ~~said~~ the case and ~~said~~ the stem; and
a stuffing box (7) for compressing ~~said~~ the packing (5) between ~~said~~ the case (3) and ~~said~~ the stem (103);
~~characterized in that wherein it provides further comprises~~ releasable means (11) for performing an axial thrust on said the stuffing box (7) so as to cause a compression of said the packing (5) between said the case and said the stem.
2. (Currently amended) ~~[[A]] The stuffing seal (1) according to of~~ claim 1, wherein ~~said the~~ case (3) and said the stuffing box (7) are interconnected by at least a blocking pivot (9a, 9b) parallel to ~~said the~~ stem, said the stuffing box (7) and/or ~~said the~~ case (3) being sliding with respect to said the pivot for allowing the axial compression of ~~said the~~ packing (5).
3. (Currently amended) ~~[[A]] The stuffing seal (1) according to of~~ claim 2, wherein ~~said the~~ pivot (9a, 9b) comprises a portion (10a) axially extending outside said the stuffing box (7), on ~~said that~~ portion being provided said the releasable means (11).
4. (Currently amended) ~~[[A]] The stuffing seal (1) according to of~~ claim 1, wherein control means (15, 17) are provided for causing the release of ~~said the~~ releasable means (11).

5. (Currently amended) ~~[[A]]~~ The stuffing seal ~~(1) according to~~ of claim 1, wherein the releasable means ~~(11)~~ comprise at least on elastically deformed element and control means ~~(15, 17)~~ for causing the release thereof.

6. (Currently amended) ~~[[A]]~~ The stuffing seal ~~(1) according to~~ of claim 5, wherein ~~said the~~ elastically deformed element is a spring ~~(11)~~.

7. (Currently amended) ~~[[A]]~~ The stuffing seal ~~(1) according to~~ of claim 4 ~~or 5 or~~ 6, wherein ~~said the~~ control means comprise a mobile element ~~(15) which can~~ able to take a first position wherein ~~said the~~ releasable means ~~(11)~~ are retained and a second position wherein ~~said the~~ releasable means ~~(11)~~ are released for performing a thrust along the axis of ~~said the~~ stem ~~(103)~~ against ~~said the~~ stuffing box ~~(7)~~.

8. (Currently amended) ~~[[A]]~~ The stuffing seal ~~(1) according to~~ of claim 7, wherein ~~said the~~ mobile element is an oscillating lever ~~(15)~~ with the fulcrum ~~(15a)~~ pivoted to ~~said the~~ case ~~(3)~~, ~~said the~~ lever comprising at ~~an~~ one end a blocking tooth ~~(15a)~~ for retaining ~~said the~~ releasable means ~~(11)~~.

9. (Currently amended) ~~[[A]]~~ The stuffing seal ~~(1) according to~~ of claim 8, wherein ~~said the~~ lever ~~(15)~~ is a lever of the first kind comprising, at the opposite end with respect to ~~said the~~ tooth ~~(15a)~~, a control surface ~~(15e)~~ whereon it is possible to act for letting ~~said the~~ lever pass from ~~said the~~ first to ~~said the~~ second position.

10. (Currently amended) ~~[[A]]~~ The stuffing seal ~~(1) according to any~~ of claim ~~[[s]]~~ ~~from 7 to 9~~, wherein ~~said the~~ mobile element ~~(15)~~ is driven by means of an actuator device, ~~(17)~~ in turn driven by a leak detector ~~(16)~~.

11. (Currently amended) ~~[[A]]~~ The stuffing seal ~~(1)~~ according to ~~of~~ claim 10, wherein ~~said~~ the leak detector ~~(16)~~ comprises a chamber ~~(19)~~, wherein the fluid coming from a leak flows.

12. (Currently amended) ~~[[A]]~~ The stuffing seal ~~(1)~~ according to ~~of~~ claim 11, wherein ~~said~~ the actuator device is a flexible membrane ~~(17)~~ which hermetically separates at least one portion of ~~said~~ the chamber from ~~the~~ an external environment.

13. (Currently amended) ~~[[A]]~~ The stuffing seal ~~(1)~~ according to ~~of~~ claim 8, wherein means ~~(13b, 27)~~ for permanently partially compressing ~~said~~ the packing ~~(5)~~ in an axial direction are further provided.

14. (Currently amended) ~~[[A]]~~ The stuffing seal ~~(1)~~ according to ~~of~~ claim 13, wherein the thrust performed on ~~said~~ the packing ~~(5)~~ by ~~said~~ the compression means is considerably lower than the thrust performed by ~~said~~ the releasable means ~~(11)~~.

15. (Currently amended) ~~[[A]]~~ The stuffing seal ~~(1)~~ according to ~~of~~ claim 13 ~~or 14~~, wherein ~~said~~ the compression means comprise a spring ~~(27)~~ interposed between ~~said~~ the stuffing box ~~(7)~~ and ~~said~~ the tooth ~~(15b)~~ of ~~said~~ the lever ~~(15)~~.

16. (Currently amended) ~~[[A]]~~ The stuffing seal ~~(1)~~ according to ~~of~~ claim 13 ~~or 14~~, wherein ~~said~~ the compression means comprise a blocking pivot ~~(9b)~~ parallel to ~~said~~ the stem ~~(103)~~ placed between ~~said~~ the case ~~(3)~~ and ~~said~~ the stuffing box ~~(7)~~, provided with a nut ~~(13b)~~ which can be closed against ~~said~~ the case ~~(3)~~ or against ~~said~~ the stuffing box ~~(7)~~ for causing the axial compression of the packing ~~(5)~~.

17. (Currently amended) ~~[[A]]~~ The stuffing seal ~~(1)~~ according to ~~any of the~~ preceding ~~of~~ claim ~~[[s]]~~ 1, wherein, between the bottom of ~~said~~ the seat ~~(3b)~~ within ~~said~~ the hole ~~(3a)~~ and ~~said~~ the packing, ~~(5)~~ a porous ring ~~(23)~~ and a plane washer ~~(25)~~ are further provided in

sequence thanks to which ~~said~~ the packing (5) is axially compressed against ~~said~~ the stuffing box (7) when the pressure of a fluid acts against ~~said~~ the porous ring (23).

18. (Currently amended) ~~[[A]]~~ The stuffing seal (1) ~~according to~~ of claim 17, wherein ~~said~~ the porous ring is a sintered metal net ring.

19. (Currently amended) ~~[[A]]~~ The stuffing seal (1) ~~according to any of the preceding of~~ claim~~[[s]]~~ 1, wherein ~~said~~ the packing (5) comprises a series of concentric rings (6) preferably made of metal or polymeric resin.

20. (Currently amended) A valve (101) for fluids comprising:
a stem (103) for controlling the opening and the closing of the valve,
a primary seal (105) which maintains hermetically separated from ~~the~~ an external environment the fluid flowing through ~~said~~ the valve (101),

an auxiliary seal able to intervene for maintaining hermetically separated from the external environment the fluid flowing through ~~said~~ the valve (101) in case of breakage or misoperation of ~~said~~ the primary seal (105),

~~characterised in that said~~ wherein the auxiliary seal is a stuffing seal (1) ~~according to any of claims from 1 to 19~~ is a stuffing seal in turn comprising:

a case provided with an axial hole for the passage of a stem being mobile with respect to the case;

a gasket or packing arranged in a seat formed within the hole between the case and the stem;

a stuffing box for compressing the packing between the case and the stem, and
releasable means for performing an axial thrust on the stuffing box so as to cause a compression of the packing between the case and the stem.

21. (Currently amended) ~~[[A]]~~ The valve (101) for fluids ~~according to~~ of claim 20, wherein ~~said~~ the primary seal further comprises a bellows seal (105) and a leak detector (16),

said the leak detector (16) in turn comprising a chamber (19), wherein the fluid flows in case of leak, connected through a channel (21) to ~~the~~ a volume (107) inside said the bellow seal (105).

22. (Currently amended) [[A]] The valve (101) for fluids ~~according to~~ of claim [[21]] 20, wherein said the primary seal further comprises a multilayer bellow seal (105) and a leak detector (16), said the leak detector (16) in turn comprising a chamber (19), wherein the fluid flows in case of leak, connected through a channel (21) to ~~the~~ a gap (105d) defined between two layers of said the multilayer bellow seal (105).

23. (New) The valve for fluids of claim 20, wherein the stuffing seal further comprises control means for causing the release of the releasable means.

24. (New) The valve for fluids of claim 20, wherein the releasable means of the stuffing seal comprise at least one elastically deformed element and control means for causing the release thereof.

25. (New) The valve for fluids of claim 24, wherein the elastically deformed element is a spring.

26. (New) The valve for fluids of claim 23, wherein the control means of the stuffing seal comprise a mobile element able to take a first position wherein the releasable means are retained and a second position wherein the releasable means are released for performing a thrust along the axis of the stem against the stuffing box.

27. (New) The valve for fluids of claim 26, wherein the mobile element is an oscillating lever with the fulcrum pivoted to the case, the lever comprising at one end a blocking tooth for retaining the releasable means.

28. (New) The valve for fluids of claim 27, wherein the lever is a lever of the first kind comprising, at the opposite end with respect to the tooth, a control surface whereon it is possible to act for letting the lever pass from the first to the second position.

29. (New) The valve for fluids of claim 26, wherein the mobile element is driven by means of an actuator device, in turn driven by a leak detector.

30. (New) The valve for fluids of claim 29, wherein the leak detector comprises a chamber, wherein the fluid coming from a leak flows.

31. (New) The valve for fluids of claim 30, wherein the actuator device is a flexible membrane which hermetically separates at least one portion of the chamber from an external environment.

32. (New) The valve for fluids of claim 27, wherein means for permanently partially compressing the packing in an axial direction are further provided.

33. (New) The valve for fluids of claim 32, wherein the thrust performed on the packing by the compression means is considerably lower than the thrust performed by the releasable means.

34. (New) The valve for fluids of claim 32, wherein the compression means comprise a spring interposed between the stuffing box and the tooth of the lever.

35. (New) The valve for fluids of claim 32, wherein the compression means comprise a blocking pivot parallel to the stem placed between the case and the stuffing box, provided with a nut which can be closed against the case or against the stuffing box for causing the axial compression of the packing.

36. (New) The valve for fluids of claim 20, wherein, between the bottom of the seat within the hold and the packing of the stuffing seal, a porous ring and a plane washer are further provided in sequence thanks to which the packing is axially compressed against the stuffing box when the pressure of a fluid acts against the porous ring.

37. (New) The valve for fluids of claim 36, wherein the porous ring is a sintered metal net ring.

38. (New) The valve for fluids of claim 20, wherein the packing of the stuffing seal comprises a series of concentric rings preferably made of metal or polymeric resin.

39. (New) The valve for fluids of claim 20, wherein the case and the stuffing box of the stuffing seal are interconnected by at least a blocking pivot parallel to the stem, the stuffing box and/or the case being sliding with respect to the pivot for allowing the axial compression of the packing.

40. (New) The valve for fluids of claim 21, wherein the pivot comprises a portion axially extending outside the stuffing box, on that portion being provided the releasable means.